

Environmental Assessment
EA-NV-030-2000-014
Interdisciplinary Management Plan for the
Silver Saddle Ranch and Ambrose Carson River Natural Area

JULY 24, 2000

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I. INTRODUCTION/PURPOSE AND NEED

A. Introduction

The Silver Saddle Ranch (SSR) contains some of the last open space and undeveloped Carson River frontage in Eagle Valley. This 703 acre ranch will provide recreational opportunities for the Carson City urban interface. The SSR Management Plan and Environmental Assessment will provide comprehensive management direction for the next 10 to 15 years. This project is a cooperative effort between the Bureau of Land Management (BLM) and the Carson City Parks and Recreation Department.

The Management Plan addresses the SSR and the ACRNA. The ACRNA is already a designated recreation area managed in partnership with the Carson City Parks and Recreation Department. Since the ACRNA is only two miles down river from the SSR, many of the same ecological and recreational principles apply. For those reasons, therefore, both the SSR and the ACRNA will be included in this plan. In addition, this plan will focus on meshing existing and future management plans for the Pine Nut Mountains, Prison Hill Recreation Area, Carson City's Park and River Master Plans and other public lands held adjacently to the river corridor in Eagle Valley.

B. Purpose and Need

The purpose of the actions proposed in the Interdisciplinary Management Plan for the SSR and the ACRNA is:

- C provide management direction for the area;
- C implement decisions made in the Walker RMP; and
- C implement multiple use management in a manner that ensures ecosystem health and integrity with an emphasis on the Carson River/riparian community and recreation pursuits.

C. Conformance with Public Land Use Plans

The proposed action and alternative described below are in conformance with the recreation management decision in the approved Reno Management Framework Plan (1982) which were incorporated by reference into the Walker Resource Management Plan (1986). The applicable decision states "Maintain a wide diversity of day use (short term) activities and recreation opportunities." The proposed action and alternatives are also clearly consistent with the objectives for wildlife, riparian, soils, water quality, and visual resource management in the Walker RMP. Other objectives in the Walker RMP have been reviewed and we have determined that no conflict exists between the proposed action, alternatives and these objectives. It also is consistent with the Memorandum of Understanding between the Bureau of Land Management, Carson City District, and Carson City, Nevada for Coordinated Outdoor Recreation Management on Public Lands. This Environmental Assessment (EA) has been prepared by an interdisciplinary team of BLM resource specialists and representatives of other private and public agencies with management responsibilities in the planning area. The action should propose specific resource allocations and prescriptions for multiple use to achieve identified resource objectives.

D. Relationship to Statutes, Regulations or Other Plans

This action complies with the mandates of the Federal Land Policy and Management Act (FLPMA) of 1976, which requires the BLM to manage public lands for multiple use on a sustained yield basis. The actions relating to cultural resources are managed according to mandates set forth by the National Historic Preservation Act, Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act, management policy specified in BLM Manual 8100, and the Programmatic Memorandum of Agreement between the BLM, Nevada State Historic Preservation Officer (SHPO) and the President's Advisory Council of Historic Preservation. Those actions pertaining to threatened and endangered species management conform to regulations of the Endangered Species Act of 1973 as amended, BLM Manual 6840, and relevant endangered species recovery plans. In addition, this plan conforms with Carson City's: *Carson City Parks & Recreation Master Plan Element*, *Land Use Plan Element Update*, *Carson River Master Plan* and the *Eagle Valley Trail System*.

E. Location

The SSR is located in Carson City between Prison Hill to the west and the Pine Nut Mountains to the east. Its legal location is Township 15N, Range 20E, Section 23 SE 1/4 SW 1/4, Section 26, Section 27 NE 1/4. The ACRNA is located at Township 15N, Range 20E Section 11 and 14 consisting of all the public lands west of Deer Run Road.

II. PROPOSED ACTION AND ALTERNATIVES

This environmental assessment analyzes the impacts associated with the implementation of the attached Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area (Management Plan) and two alternatives, Alternative A, the Low Impact/Minimum Development Alternative and Alternative B, the Working Ranch/Environmental Education Alternative. The proposed action is described in detail in the Management Plan. The alternatives are described in detail in the Draft Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area, April 17, 2000. These descriptions are incorporated by reference in this environmental assessment.

Issue Identification

The issues to be addressed in the Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area were identified by public comments received during the August 1998 comment period and by both the internal and external teams developing this Management Plan for the SSR (SSR). Ten issues were identified and addressed by the Management Plan and alternatives to the plan. The ten issues are:

1. Recreation Opportunities and Management
2. Public Health and Safety
3. Fire Management
4. Preservation and Protection of Cultural Resources

5. Vegetation Management
6. Wildlife Habitat Management
7. Water Management
8. Non-Point Source Pollution Management
9. Relationships to Adjacent External Areas
10. Management of Ambrose Carson River Natural Area

Definitions of each of these issues are presented in the attached Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area. These definitions are incorporated by reference in this environmental assessment.

A. Management Plan

The Management Plan provides a broad range of recreation activities with a minimum impact on cultural and natural resources. Trails are designed to complement Carson City's *Carson River Master Plan* and the *Eagle Valley Trail System*. Hiking, birdwatching, interpretive and environmental education activities, bicycling, and horse back riding enthusiasts are the primary audiences for the SSR or ACRNA. In addition, opportunities for river rafting, fishing and riding off-highway vehicles on designated routes are additional recreational pastimes. This plan allows for vehicle access into the SSR to pursue access to trails, picnic areas, the riparian corridor and interpretive and educational panels exploring the historic ranch. The cultural landscape with its pastoral fields will be incorporated into the open space and recreational activities of this plan. Goals, objectives and management actions of the Management Plan are described in detail on pages 8-38 of the attached Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River natural Area. They are incorporated into this environmental assessment by reference.

B. Alternative A - Low Impact/Minimum Development

This alternative to the Management Plan focuses more on resource management than recreation management pursuits. All recreation activities will be managed for minimal impact on resources, contain more restrictions on access and consist of less developed sites, including trails, signs, rest rooms, parking lots, irrigated agriculture and other facilities. This alternative will cost the least to implement, operate, and maintain. Goals, objectives and management actions of Alternative A are described in detail on pages 42-48 of the Draft Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area, April 17, 2000 . They are incorporated into this environmental assessment by reference.

C. Alternative B -Working Ranch/Environmental Education

This alternative focuses on special recreation use by one or two types of participants. More intense recreational facilities will be developed to accommodate the select type of use. Public access will be limited to about three-quarters of the SSR due to the concessionaire or not-for-profit organizations operating facilities. Recreation sites will be developed on the east side of the Carson River and the Prison Hill connection similar to the Management Plan. The historic agricultural fields may be maintained

in a productive vegetative state in this alternative. Alternative B is the highest in cost and the BLM would have other partners (not-for-profit/foundations) or concessionaires to support this plan. However, this plan could also produce the most revenue in terms of use and concessionaire fees paid to the BLM for operation. This plan would allow for intensive and structured regional environmental education (EE) programs. If the farm/ranch option is chosen, it could be used by educators and the general public to show and educate about a life style that is rapidly disappearing from the Carson, Eagle, and Washoe Valleys and the Reno/Sparks area. Goals, objectives and management actions of the Management Plan are described in detail on pages 49-56 of the Draft Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area, April 17, 2000. They are incorporated into this environmental assessment by reference.

D. Alternative C - No Action

The No Action Alternative for the SSR would implement Walker Resource Management Plan (RMP) decisions and guidance without benefit of additional activity level planning. The ten major Issues raised during public and internal scoping processes would not be specifically addressed by planning guidance found in the Walker RMP. The intended use of the ranch for recreation purposes combined with the presence of significant cultural, riparian, and wildlife resources indicate that the no action alternative is not a viable alternative. The 1998 public scoping resulted in the majority of public not accepting this action. The need to coordinate management of the ranch with the Carson City Master Plan and the adjacent Carson River Park indicates that additional activity level planning is needed. The location of the ranch combined with the intended uses raise significant public health and safety concerns that need to be addressed in a specific plan for the area. For these reasons the No Action alternative will not be carried forward for analysis. Under this action and without the CRMP, an adverse neglect through the lack of building maintenance and vegetation management of a [significant] property which causes its deterioration would have an adverse affect only if the buildings and structures, or the Ranch itself have been identified as significant.

III. AFFECTED ENVIRONMENT

A. Scoping and Issue Identification:

Public scoping for the SSR was conducted during August and September 1998. In addition, scoping and comments were taken from February 1998 during the formal public comment period. The Interim EA (1999) was scoped at meetings of the BLM internal team and with the established external team. These teams considered these critical elements and issues listed below with respect to the proposed action. The Affected Environment has been covered in detail in the Perma-Bilt/ALC Exchange and it is incorporated by reference in this Environmental Assessment (EA) as a supplement to the information provided in this document. Please refer to EA NV-054-97-026.

The ACRNA was scoped for public review as early as February 9, 1994, when a public workshop was held by Carson City to discuss the "Carson River Corridor." The comments provided at this workshop were used by the Carson River Advisory Committee (CRAC) to develop the *Carson River*

Master Plan 1996. The BLM was a key player in the development of the *Carson River Master Plan* and recommended that the area now known as the ACRNA be developed in partnership with Carson City and the BLM. In 1998 the BLM completed its EA for construction of the parking and access improvements bordering this stretch of the Carson River and properties managed for recreation by Carson City Parks and Recreation Department.

B. Proposed Action:

The following critical elements have been considered and would not be affected by the proposed action or alternatives in this EA. These determinations were made by the preparers listed in the Consultation & Coordination section of this EA.

Air Quality
Environmental Justice
Prime or Unique Farmlands
Native American Religious Concerns
Paleontology
Wastes Hazardous or Solid
Wild and Scenic Rivers
Wilderness

The following resources are not affected by the proposed action or alternatives. These determinations have been made by BLM resource specialists.

Geologic resources
Forestry
Water rights
Visual resources.

Resources Present and Brought Forward For Analysis

The following resources/issues are potentially affected by implementation of the proposed action or alternatives. They will be addressed in this EA.

1. Recreation
2. Public Health And Safety
3. Fire Management
4. Preservation And Protection of Cultural Resources (Plants identified as traditionally Useful by Native Americans & historic structures)
5. Vegetation Management (noxious weeds, threatened and endangered species, pastoral pursuits)
6. Wildlife Habitat Management(including threatened and endangered species)
7. Water Management
8. Non-Point Source Pollution Management (water quality, flood plains, soils)
9. Relationships to Adjacent External Areas
10. Management of the Ambrose Carson River Natural Area

11. Socio-Economic Resources

1. Recreation

The Silver Saddle Ranch is located in a key position in Eagle Valley. It abuts public lands to both the east and west. Over 350,000 acres of public lands in the Pine Nut Mountains, to the east of the ranch, contain significant natural and social resources utilized by the public in the Carson and Eagle Valleys. These resources include but are not limited to recreation, wildlife, cultural, mineral, and wild horse management area. About 2,000 acres of public lands in the Prison Hill Recreation area abut the SSR to the west and is just east of Carson City. Public lands on Prison Hill provide both recreational (mountain biking and hiking) and scenic resources for the Carson City area. The SSR provides convenient access routes to both the Pine Nut Mountains and Prison Hill and serves as a public land bridge between these two areas. School groups, birders, boaters, equestrian, fishing persons, off-highway vehicles enthusiasts and sightseers make frequent use of the area. The SSR property on the eastern side of the river is currently open for recreation and receives similar use as the ACRNA.

2. Public Health And Safety

Prior to BLM acquisition of the SSR the east side of the Carson River was open for public use. The west side of the river was a working ranch and closed to public use. Implementation of the proposed action or either of the alternatives will increase public use on the west side of the SSR. Historic structures, including fences, buildings, irrigation ditches, electric and water utilities, can be a safety hazard to the public. Roads that will be used for public access will have to be upgraded to meet safety standards. Parking and pedestrian walkways will have to be established to meet accessibility and safety standards for recreational facilities. Historic mining remains on Prison Hill must have proper safety fencing and signing near them.

3. Fire Management

Existing fire management direction on the SSR and the ACRNA is to aggressively initial attack wildfires with the intent of holding unplanned ignitions to 5 acres or less 90% of the time in all fuel types. Opportunities for prescribed fire exist but will be limited to small, cautious operations.

The SSR is comprised of upland, riparian and pasture fuels, all of which are conducive to burning. Fuels adjacent to the ranch consist primarily of upland types. Buildings and structures are present on the property, some of which are at risk of being damaged or destroyed by wildfire if adequate defensible space is not maintained.

The SSR and the ACRNA have riparian fuels consisting of grasses, forbs and willows with a cottonwood over story. In addition, perennial flooding has deposited a heavy loading of dead and down large fuels. This fuel type is susceptible to human caused wildfires from late summer through winter. In the spring, live fuel moisture is typically high and the live fuels will not support active fire

spread. Fire spread is typically slow, intensity moderate and the resistance to control high. The heavy dead and down component is a concern and will hamper fire suppression activities. This fuel type is present adjacent to the Carson River on the west side and also in scattered locations within the active flood plain area surrounding sloughs and backwater. Portions of the east side of the river are also represented by this fuel type but most of the east side and the ditch areas are better represented by the upland fuel type.

The SSR upland fuels consist of primarily grasses, sagebrush and bitterbrush. This fuel type is highly susceptible to lightning and human-caused wildfires throughout the year. Fire spread is typically moderate, intensity moderate and the resistance to control moderate in the spring and winter. Fire spread is typically fast, intensity high and the resistance to control high in the summer and fall. This fuel type is present on the east side of the Carson River but it's continuity is broken up by numerous roads. It is fairly continuous in the pastures and buildings on the west side of the Carson River.

The pasture fuels consist of grasses and forbs. This fuel type is susceptible to primarily human caused wildfires when they are not being irrigated or irrigation has ceased. Fire spread is typically very fast, intensity low and the resistance to control is low. This fuel type is present in all of the irrigated and idle pastures.

There has been recent fire activity, lightning and human ignitions, on the ranch itself on the east side of the Carson River and adjacent to the ranch on Prison Hill.

4. Preservation And Protection of Cultural Resources

The cultural environment of the SSR is 703 acres nestled between Prison Hill and the Pine Nut Mountains to the west and east, respectively. The Carson River flows through the property. Traditionally, this land was the home of the Washoe Tribe. A long oral history and occupation of the area was known before Euro-Americans arrived in 1849. The Washoe primarily used the area of gathering plant resources and for hunting. By 1861 the Mexican Dam and Ditch were built to divert water away from the Carson River to the Mexican Mill. The former mill site is approximately ¼ mile west of the ACRNA. The Mexican Ditch is in use today bringing water to the Ranch and other users north of the SSR.

The first recorded agricultural development along the Carson River in Eagle Valley were recorded by the Government Land Office in 1862. In 1864 Rosalia Morres obtained land within the current Ranch property. Thereafter, four other individuals blocked up the remaining lands of the SSR. By the 1920s only two distinct ranches were present and the 1950s the property was combined into a single property. The Merchants were the last family to own the Ranch selling it to the Federal Government (BLM) in 1997. There are 13 ranch-related buildings on both sides of the Mexican Ditch. These buildings consist of two small houses, barns, sheds, garages, and other outbuildings. In addition, the ranch has many fenced pastures and irrigation-related features. Most of the buildings are in poor to fair

condition dating from the 1920s to 1980s. There are no known cultural manifestations associated with the ACRNA.

5. Vegetation Management (noxious weeds, threatened and endangered species, pastoral pursuits) Noxious or injurious weeds in the forms of Little Whitetop, Canada Thistle, and yellow starthistle are present on the SSR and ACRNA as of this date.

The SSR contains approximately 125 acres of cultivated fields. This area may have been cultivated since the 1870s with various crops. These fields are watered by the Mexican Ditch and irrigation ditches that are found on the property. Water from the ditch comes from the Carson River during the months of April through September. The ditch runs through the property and all the irrigated fields lie below the ditch. Various sections of the ditch are lined with willows. The vegetation found in the fields are a combination of orchard grass, native grasses and some annual grasses. Currently only 80 acres are under irrigation. The remaining acreage is either bare ground, weeds or annual grasses. Where there is some seepage from the Mexican Ditch to these unirrigated fields, there are areas of perennial grasses and even some wetland vegetation. There are also several locations in the fields that are low areas that hold water part of the year and contain wetland vegetation. Numerous fences bisect the fields and they closely follow the soil texture types boundaries. There are several small fields adjacent to the ranch house that appear to have been small holding fields for cattle or horses. These fields now contain sagebrush and annual grasses.

Noxious Weeds: Two species of noxious weeds have been identified on the SSR property. A small patch of yellowstar thistle was located along the riparian corridor in 1999 and the few plants were hand-pulled that same year. Canada Thistle was also located in two patches in the same area. These Canada Thistle infestations were not treated in 1999, but will be sprayed with herbicide in 2000. The Silver Saddle and Ambrose properties will be inventoried every year for noxious species and the treatments will be outlined in the Carson City Field Office's Annual Treatment Plan.

Riparian: The riparian vegetation along the Carson River corridor is described in the Ecological Site Descriptions for MLRA (Major Land Resource Area) 26-1: Moist Floodplain: see NRCA Ecological Site Descriptions. Major grass species include Creeping Wildrye, Basin Wildrye, Nevada Bluegrass, Western and Streambank Wheatgrass, and sedges and rushes. Major forb and shrub species include cinquefoil, yarrow, groundsel, rose, basin big sagebrush, rubber rabbit brush, and silver buffaloberry. Woody species present are Fremont Cottonwood and willows. This plant community is associated with the Sagouspe soil series (soil map unit 57: Soil Survey of the Carson City Area, Nevada). A riparian functionality assessment for the Silver Saddle riparian corridor was completed in 1999 by an interdisciplinary team. The area was rated as functional-at-risk with no apparent trend. Factors contributing to this rating, and outside BLM control, includes road alignment, upstream channel conditions, and possibly channelization.

6. Wildlife Habitat Management (including threatened and endangered species)

The single most important wildlife habitat assemblage in both SSR and ACRNA is the riparian/riverine habitat complex along the Carson River. This corridor contains habitat elements that vary from the truly aquatic habitats in the Carson River, to the forest canopy of the cottonwood dominated riverine forest with willow/shrub, herbaceous, dead-wood, and lower tree canopy habitats in between. The juxtaposition and intermingling of habitats in this narrow band along the river provides some or all of the life requirements for almost all of the wildlife species found at SSR and ACRNA.

Two other major habitat complexes occur on the SSR, mixed brushfields (bitterbrush, sagebrush and desert peach) along the lower slopes of Prison Hill, and the irrigated fields and meadows with their associated water distribution and drainage areas. Many of the wildlife species using these habitats also make use of the riparian corridor habitats.

While past agricultural practices have impacted the integrity and productivity of these habitats, the geographical convergence of the Pine Nut Mountains and Prison Hill, with the Carson River flood plain, creates one of the highest quality aggregations of wildlife habitat remaining in Eagle Valley. Past disturbances notwithstanding, this small corner of the valley is one of its most important wildlife areas.

Comprehensive inventories of the species using these habitats have not been conducted, but the species known, suspected, or possibly found on the SSR are listed in the Wildlife Species Table found on the pages 11 and 12.

Threatened, Endangered and Sensitive Species

Because there are no comprehensive species inventories, no documented occurrence or threatened, endangered or sensitive species at SSR or ACRNA exists. The following sensitive species could occur: golden eagle, Swainson's hawk, white-faced ibis, osprey and burrowing owl. Potential wintering and nesting habitat exists at both SSR and ACRNA for the federally listed (threatened) bald eagle.

Fish species are not abundant, since the Carson River is not the best quality habitat for such species as rainbow and brown trout, as that the river is too warm in the summer months and lacking gravel bottoms in which trout could spawn. Non-game species include red side shiners and speckled dace.

The BLM is responsible for management of wildlife habitat, while the Nevada Division of Wildlife (NDOW) is responsible for management of resident wildlife species. The BLM and NDOW have a Master Memorandum of Understanding (MOU) dating back to 1972, which, with its several supplements, identifies the role of each agency, including habitat management, big game reintroductions, sharing of information, wild horse management, and implementation of the Sikes Act of 1974. The Sikes Act provided broad authority to plan and carry out wildlife conservation and habitat rehabilitation programs on public lands consistent with land use plans, protect significant habitat used by Threatened or Endangered Species, and enforce regulations to control off-road vehicle traffic or other land uses

subject to conservation and rehabilitation programs conducted under the act. The Habitat Management Plans prepared by the BLM fall under the Sikes Act, which was used also as a funding mechanism.

Wildlife Species Table

Presence: Kb = known to breed on site; K? = known from site, breeding status unknown;
 Kn = known from site, non-breeding or migrant; S = suspected to occur; P = possibly occurs
 Habitat: rip = riparian; mdw = meadow; bsh = brushfields

Species	Presence	Habitats	Species	Presence	Habitats
BIRDS					
Great blue heron	K?	rip, mdw	Scrub jay	Kb	rip, bsh
Great egret	P	rip, mdw	Black-billed magpie	Kb	rip, bsh
Snowy egret	P	rip, mdw	Pinyon jay	S	rip
Snow goose	S	mdw	Common crow	S	rip
Ross' goose	Kn	mdw	Western bluebird	S	rip, bsh
Mallard	Kb	rip, mdw	Townsend's solitaire	K?	rip, bsh
Northern shoveler	K?	mdw	Mountain bluebird	K?	rip, bsh
Gadwall	K?	mdw	Hermit thrush	K?	rip, bsh
Northern pintail	K?	mdw	American robin	K?	rip, mdw
Canada goose	Kb	rip, mdw	Sage thrasher	K?	bsh
Wood duck	K?	rip	Loggerhead shrike	S	bsh
Sandhill crane	P	mdw	Water pipet	S	rip
Killdeer	Kb	rip, mdw	Dipper	S	rip
Willet	P	rip, mdw	Cedar waxwing	S	rip
Spotted sandpiper	S	rip	European starling	K?	rip, mdw
Long-billed curlew	P	mdw	Warbling vireo	K?	rip, bsh
Wilson's phalarope	S	mdw	House wren	K?	rip, bsh
Rock dove	Kb	rip, mdw	Bewick's wren	K?	rip, bsh
Mourning dove	Kb	rip, mdw, bsh	Winter wren	K?	rip, bsh
Yellow-billed cuckoo	S	rip	Marsh wren	S	mdw
Barn owl	Kb	rip	Ruby-crowned kinglet	Kn	rip, mdw
Great-horned owl	Kb	rip	Nashville warbler	K?	rip, bsh
Short-eared owl	P	mdw	Virginia's warbler	K?	rip, bsh
Western screech owl	P	rip	MacGillivray's warbler	K?	rip, mdw
Western wood-pewee	K?	rip	Yellow-rumped warbler	K?	rip, mdw
Gray flycatcher	K?	rip	Townsend's warbler	K?	rip, mdw
Hammond's flycatcher	K?	rip	Hermit warbler	K?	rip, mdw
Olive-sided flycatcher	K?	rip	Western meadowlark	K?	mdw, rip
Western kingbird	K?	rip	Brewer's blackbird	K?	mdw, rip
Dusky flycatcher	K?	rip	Red-winged blackbird	K?	mdw
Say's phoebe	S	rip	House finch	K?	rip, bsh
Black phoebe	K?	rip	Lesser goldfinch	K?	rip, mdw
Willow flycatcher	K?	rip	House sparrow	K?	rip, bsh
Cordilleran flycatcher	K?	rip	Black-headed grosbeak	K?	rip, bsh
Northern flicker	K?	rip, bsh	Blue grosbeak	K?	rip, bsh
Tree swallow	K?	rip	Spotted towhee	K?	rip, bsh
Bank swallow	K?	rip, bsh	Song sparrow	K?	rip, bsh

Species	Presence	Habitats	Species	Presence	Habitats
N. rough-winged swallow	K?	rip, bsh	Oregon junco	K?	rip, bsh
Cliff swallow	K?	rip, bsh	Brewer's sparrow	K?	rip, bsh
Violet-green swallow	K?	rip, bsh	White-crowned sparrow	K?	rip, bsh
MAMMALS			AMPHIBIANS		
Merriam shrew	P	rip, bsh	Great basin spadefoot	P	bsh
Little brown myotis	P	rip, bsh	Western toad	P	bsh
Fringed myotis	P	rip, bsh	Pacific treefrog	P	rip, mdw
Long-eared myotis	P	rip, bsh	Leopard frog	P	rip, mdw
California myotis	P	rip, bsh	REPTILES		
Western pipistrel	P	rip, bsh	Leopard lizard	P	bsh
Small-footed myotis	P	rip, bsh	Collard lizard	P	bsh
Big brown bat	P	rip, bsh	Sagebrush lizard	P	bsh
Hoary bat	P	rip, bsh	Western fence lizard	P	bsh
Townsend's big-eared bat	P	rip, bsh	Side-blotched lizard	P	bsh
Pallid bat	P	rip, bsh	Desert horned lizard	P	bsh
Raccoon	K?	rip, mdw	Western skink	P	bsh
Shorttail weasel	P	rip, mdw	Rubber boa	P	all
Longtail weasel	P	rip, mdw	Striped whipsnake	P	bsh
Badger	K?	bsh	Gopher snake	P	all
Striped skunk	K?	rip, mdw	Garter snake	P	all
Coyote	S	all	Western rattlesnake	P	all
Bobcat	P	rip, bsh	FISH		
Townsend's grnd sqrl	Kb	rip, bsh	Red-sided shiner	P	rip
Whitetail antl grnd sqrl	K?	rip, bsh	Speckled dace	P	rip
Least chipmunk	P	bsh			
Valley pocket gopher	P	rip, bsh			
Little pocket mouse	P	bsh			
Desert pocket mouse	P	bsh			
Dark kangaroo mouse	P	bsh			
Ord kangaroo rat	P	bsh			
Beaver	Kb	rip, mdw			
Western harvest mouse	P	rip, mdw			
Deer mouse	P	all			
Bushytail woodrat	P	rip, mdw			
Longtail vole	P	mdw			
Sagebrush vole	P	bsh			
Porcupine	P	rip, bsh			
Muskrat	K?	mdw			
Blacktail jackrabbit	K?	bsh			
Mule Deer	Kb	all			

7. Water Management

Water is the resource that creates the environment at the SSR that has, and will continue to attract a variety of interested publics. The Carson River flowing through the eastern portion of the property, with its galleried riverine cottonwood forest, provides the primary aesthetic focus for the entire property. This river corridor is the single most complex and important assemblage of resource values present; from wildlife habitat to recreational opportunities, and just the pure pleasure of viewing this green corridor all contribute to its value.

Additionally, the Mexican Ditch and associated irrigation system provides a water source that has allowed the development of a narrow but substantial willow thicket that traverses the ranch and parallels the river. This is also the source of the water that keeps the fields so green and attractive and creates the small marshy drain areas that add further texture to the scenic quality of the ranch.

Water is also needed for public consumption at the SSR under all of the alternatives. Currently there is an old domestic well located adjacent to the red house that once supplied drinking water to the ranch. This is a shallow well and may be tainted from either surface or shallow aquifer contaminants. It is not currently considered to be a safe source of potable water.

In one manner or another, each of these water resources currently pose a management problem for the SSR. Low summer flows in the Carson River creates a host of problems for the aquatic environment through elevated temperatures, declining dissolved oxygen levels, and a constantly moving shoreline. For the Mexican Ditch and associated willow-marsh areas, the management problems are associated with the lack of guaranteed water for the ranch; just as with the well, the problems are in the lack of safe drinking water for the visiting public. Because it is so intimately tied with maintaining the vegetal communities on the ranch, the irrigation water issue in the Mexican Ditch is analyzed in the Vegetation Management section (Issue #5), and this discussion will be limited to Carson River flows and the safe drinking water problems.

8. Non-Point Source Pollution Management (water quality, flood plains, soils)

The SSR and the ACRNA straddle the Carson River in the Carson City urban area. A soils survey was completed for this area in 1975, and subsequently published by the Soil Conservation Service (SCS), now the National Resource Conservation Service (NRCS), in 1979. The survey essentially reflects conditions as they were in 1974.

Silver Saddle Ranch: There are two major land forms that occur in this area, uplands, including alluvial fans, and the Carson River floodplain, which includes the riparian corridor adjacent to the river and the older floodplain terraces and associated wetlands. The uplands on the west side of the river (Prison Hill) are shallow to moderately deep to weathered parent material, either meta-volcanic or granitic, and have moderate erosion hazard ratings and moderate to rapid runoff. Textures range from gravelly loamy coarse sand to very gravelly loam, and soil reactions (pH) are neutral to mildly alkaline. Ratings for the development of paths and trails are severe due to slope (up to 50%). The alluvial fan soils below these

uplands are deep and well drained, are composed primarily of gravelly sandy loams, and are neutral in reaction. Erosion hazard ratings for these soils are slight to moderate. Ratings for the development of paths and trails are moderate to severe; restrictive features include susceptibility for soil blowing in the sandier areas to small rocks and dust problems. The irrigated pasture soils are deep and contain relatively more organic matter than the uplands, and are of course much more productive. These soils also contain more fines such as silt or clay than do the undisturbed uplands. The uplands on the east side of the river are moderately deep to shallow to indurated, silica-cemented hardpans. The soil texture is primarily gravelly to very gravelly fine sandy loams. The erosion hazard rating of the Ursine variant soil is high. Soil reactions can range from slightly acid to moderately alkaline in the Ursine soil. Ratings for the development of paths and trails are moderate due to dust potential and small stones. The alluvial fan soils below these uplands are very deep and well drained and coarse textured with 2-4% slopes.

The riparian corridor soils are very deep and somewhat poorly drained and consists of stratified sands, fine sands, and loams. These soils are occasionally to frequently flooded and are prone to bank erosion and/or deposition during flood events. The other floodplain soils are situated on higher terraces and have been used as livestock pastures for 75 to 100 years, or longer. These soils are also very deep and somewhat poorly to poorly drained, are stratified with sandy to loamy river sediments, and have very shallow water tables (1-2 ft.). Wetlands are present in two areas of the Cradlebaugh soil. Most of the riparian corridor and older floodplain terrace soils were inundated in the 1997 flood event (New Years Flood). Ratings for paths and trails are moderate due to either wetness or sandy conditions. The riparian corridor soils also flood periodically, and trails/paths would have to be re-constructed.

Ambrose Carson River Natural Area: Within the Ambrose property there is very little riparian river corridor or older floodplain terrace area, but what there is of these land forms is essentially the same as what was described for the SSR. The upland soils are also quite similar, differing only in a few degrees of slope percent, and less inherent gravel material in the soil profile. Erosion hazard ratings are slight to moderate, and the rating for paths and trails is moderate due to the potentials for either dust, sandy conditions, or wetness. As mentioned above the riparian corridor floods periodically, and trails would have to be reconstructed after the event.

9. Relationships to Adjacent External Areas

The SSR lies between public land to both the east and west. Over 350,000 acres of public land in the Pine Nut Mountains, to the east of the ranch, contain significant natural and social resources utilized by the public in the Eagle and Carson Valley areas. These resources include, but are not limited to, recreation, wildlife, cultural, and mineral, as well as a wild horse management area. About 2,000 acres of public land in the Prison Hill Recreation Area adjoin the Ranch to the west and is just east of Carson City. Public lands on Prison Hill provide both recreational and scenic resources for the Carson City area. SSR provides convenient access routes to both the Pine Nut mountains and Prison Hill and serves as a public land bridge between these two areas.

North of the ranch, private agricultural lands in the Carson River flood plain provide open space values, and are subject to residential development. Existing ranches and a golf course currently occupy much of the flood plain to the north of the ranch and provide open space, scenic values and temporary flood water storage areas during periods of high runoff. South of the ranch several residential developments exist on private lands. These developments are upstream of the ranch and the other agricultural lands in Eagle Valley. There are no significant agricultural lands between the ranch and these developments. The 18-acre ACRNA is located on the east side of the Carson River about two miles down river from the SSR. The ACRNA is cooperatively managed by the BLM and Carson City.

10. Management of the Ambrose Carson River

The ACRNA is located on east of Carson City, Nevada along the east side of the Carson River. The lands immediately west of the ACRNA, which constitute the majority of river environment along this stretch of river, are owned and managed by Carson City. The ACRNA is currently managed by the BLM in partnership with Carson City through the Carson City Parks and Recreation Department to provide recreational access to the Carson River. Approximately 182 acres in size, the ACRNA provides a convenient area for the residents of Carson City to enjoy public access to the river.

Deer Run Road, a Carson City public road, provides the main access to the ACRNA river corridor. A graveled loop road located off Deer Run Road provides access to trail head vehicle parking. River corridor access is provided by several non-motorized trails. The trails extend west from the parking areas then branch out along the river in both north and south directions.

The combination of access, water, trees, shade, wildlife, recreation and environmental education opportunities attracts 1,100 people annually to the ACRNA. Recreational uses occurring at the ACRNA include walking, horseback riding, sightseeing, birdwatching and relaxing. Water-based recreational opportunities center around fishing and river rafting/canoeing. To a limited extent, the ACRNA is utilized as a raft/canoe launch staging area. The majority of use at the site is short term, day use, by local residents. Undesirable activities currently taking place at the ACRNA include littering, loitering after dark and unauthorized motorized vehicle use.

Considering the river corridor setting, the ACRNA and related river resources offer exceptional Environmental Education opportunities. Many elementary schools in the Carson City area visit the ACRNA to conduct their environmental education programs. Road and parking improvements made in 1998 were designed to accommodate large school busses.

Visual Resources Management

The Carson River landscape is rated very high in scenic value due to the presence of water and cottonwood trees. Public sensitivity to the river corridor is very high as indicated in the 1994 Carson City Visual Preference Survey and through the recent Carson River Master Plan process. The area is currently rated Visual Resource Management Class III.

11. Socio-economic Resources

Although the SSR is located in Carson City, as open space, it contributes to the economic and social well-being of a wider area. The study area is, for the purposes of this discussion, defined loosely as the Carson Valley, Eagle Valley, and the Truckee Meadows. This section describes the affected environment for the proposed action and the Alternatives.

Social Environment

This area of west-central Nevada includes Carson City, the Minden-Gardnerville area, and the Reno-Sparks metropolitan area. Over time, the area has evolved from a predominantly agricultural area to one of the fastest growing regions in the country. As such, the study area which was characterized by the traditional social fabric, structure, and lifestyles associated with agrarian-based industries are giving way to a social structure associated with growth and economic diversification.

As the study area increases in population, housing and commercial developments displace expanses of land once used for agricultural and recreational purposes, land which contributed to an informal sense of open space. As a result, society's demonstrated need for open space increases as the amount of undeveloped area diminishes, thereby fostering a heightened appreciation for the resource. While the acquisition of the SSR as a public asset has secured open space in a populated area, the actions taken to manage the asset will affect the social environment in some fashion.

Economic Environment

The economy of the study area continues to be based to some extent in agriculture; that sector of the local economy however, continues to decline. According to 1997 Census information compiled by the State (Nevada Agricultural Statistics 1999, August 1999) the study area had about 450 farms, with 870,000 acres in production – mainly alfalfa, native hay, or irrigated pasture. Statistics show that the number of farms in the study area dropped by 13 percent since 1992, which indicates the reduction in open space that is occurring over a relatively short time frame. In Carson City, the decrease in farm numbers is more dramatic – over the same time period, the number of farms dropped by more than 35 percent.

Employment, Personal Income, Population

The 1997 study area economic statistics are shown in the following table (source: Nevada Division of Water Planning).

Locality	Employment	Personal Income (millions)	Population
Carson City	27,821	\$784.02	50,410
Washoe County	169,684	\$4,696.61	308,700
Douglas County	19,296	\$466.87	39,590

On average, the study area population is expected to grow by about 1.6 percent annually (Carson City 1%, Washoe County 1%, Douglas County 3%).

IV. ENVIRONMENTAL CONSEQUENCES

PROPOSED ACTION

1. Recreation

Implementation of the proposed action for SSR and ACRNA should increase the diversity and quality of recreation in the valley. The types of recreation would be generally passive in nature and available to all economic groups and ages. The current visitation level observed at the area that is open to the public along the Mexican Dam Road (River Path Trail) is approximately 40 persons per day on the weekends and 10-20 on weekdays. The study area has one of the fastest growing populations in the country and since visitation is a function of population, it is expected that visitation levels at the SSR and ACRNA will increase proportionately with population growth. Determining the threshold of visitation that the SSR and ACRNA can sustain without incurring reduced enjoyment of activities by visitors due to human traffic increases on trails, at picnic facilities, at interpretive sites and wildlife impacts due to human traffic, is difficult at the present time. Such thresholds may emerge as actual visitation levels are measured over time and assessments are made as to the appropriate visitation thresholds that can be attained and optimally managed.

Existing roads, trails and parking areas will be used as much as possible. However, enlarging the current parking area (adjacent to the pole barn) and creating an additional new parking area for the picnic area and trail junctions between the “white house” and barn complex are planned improvements. The planned group picnic area is already in a partially disturbed area and the lot will be surfaced with gravel and not paved. All planned construction sites will be accessed by gravel roads or roads utilizing non-pavement bases. A one-way traffic loop, using a portion of the old gravel pit road and an existing dirt road, should cost less than constructing a new road and prevent tearing up the terrain to build a mile of road.

The three new planned trails will be visually inconspicuous. The Prison Hill connecting trail will follow a current drainage area; portions of the trails outside the drainage will utilize switchbacks to reduce impacts from erosion. All pedestrians, mountain bikes, and equestrian activity will be required to stay on approved trails to prevent “trail braiding” and reduce soil erosion frequently caused by un-managed visitor trail activity. Activities at the ACRNA will not require the construction of a new parking area. Any new trails will most likely be on the Carson City side (west side of the Carson River) of the property. Recreational activities (such as hiking, biking and equestrian use) will increase in usage over time, as that these trails will connect from multiple sources and there are expected population increases. Some recreational users may not like the increased traffic on trails or any visual impacts trails might cause over time.

The Eastside Trail head (staging area) located on the east side of the Carson River, will be a multiple-use trail head that will connect with the power line road and other roads leading into the Pine Nut Mountains. The biggest impact to recreation is expected to be conflict between user groups on the trail. Mountain bikes, horse back riding and ORV users at times have right of way issues when crossing each other on the trail. Informational signs will be in place in the designated parking area at the east "Trail Head". These signs will address *Tread Lightly* recommendations, trail etiquette, and approved trail routes. All OHV/ORV activity must stay on approved and current trails. The staging area for parking will be constructed immediately off the Mexican Dam Road and be surfaced with a gravel-based material. Access to the staging area will be provided by a gravel road suitable for use by two wheel drive passenger vehicles. The River Trail (already in existence) on the east side of the Carson River will include a trail sign, additional vehicle barriers to the river and regular monitoring by volunteers and rangers to reduce the current vandalism problems. Proper trail use by recreationist should enhance the quality experience while riding or hiking in the mountains and also prevent soil erosion and un-slightly scars created by going off trail.

Water quality and contaminant data are lacking, but it is likely that at current summer flows, the Carson River is not completely safe for water based recreation activities involving full body contact. BLM can not control upstream water use and conditions that may contribute to the degradation of water quality in the Carson River on the SSR. By acquiring in-stream flow water rights, placing trails away from the shoreline and providing interpretive signs at the trail heads BLM will mitigate the potential impacts of reduced water quality in the river and assist visitors with water safety. Aesthetic and recreational values provided by the irrigated-green hay fields and water in the ditches will maintain the cultural farm landscape that visitors enjoy. Similarly, the water system at SSR is not totally safe for public consumption. The Draft Plan identifies the need for a safe potable water supply for public use at the Ranch. This may be accomplished by, eventually tying into the Carson City water system, upgrading one or both of the existing wells on the property, or by drilling new wells.

Monitoring visitor uses and use levels by volunteers and seasonal rangers is expected to aid in identifying and correcting possible resource and recreation problems related to visitation. Partnerships with Carson City regarding Carson River Park facilities and staff will reduce duplication of services, costs, and staffing and resource impacts. Signs that clearly state rules and regulations associated with facilities and operations should enhance public recreation activities, safety as well as resource protection. Volunteers will be able to give on site interpretation and information to recreationist.

The potential for fire damage to both natural and cultural resources is definitely increased by visitation. The Carson City Field Office's BLM Fire Plan should reduce threats and assist with educating the public regarding fire hazards. A good chance of fire interpretation by fire crews or interpretive signs showing old burn areas will allow for additional interpretive activities for recreationist.

2. Public Health And Safety

Management actions will minimize the threat to health and safety of the visitors to the SSR and ACRNA by:

Fuels treatment applications could add an increase risk to public safety. The general public will be restricted from these areas during the treatment application.

General maintenance of the existing facilities will be an ongoing activity in order to promote public safety. This includes construction of or modification to buildings and structures for the purposes of public safety ranch setting.

Agricultural operations involving the use of motorized farm equipment could increase the risk of physical injury to members of the public. In order to reduce this risk, the general public will be excluded from the hay fields and other areas affected by agricultural activities during periods of operation. Other vegetation treatments such as prescribed fire or weed spraying may also pose risks to the public. Treatment areas may be closed to the public, as needed, to reduce or eliminate these risks.

Providing drinking water increases the risk to the public. Drinking water will be monitored to meet current acceptable standards for consumption. Also, not providing drinking water is a risk in itself as that the public may drink untreated water to quench thirst. Until safe drinking water is provided, all current hoses and facets must be locked to prevent use.

3. Fire Management

The implementation of the proposed action at the SSR and ACRNA will have positive and negative effects on fire management. As human activity increases at these areas, the risk of human caused wildfires will increase. This increases the threat of wildfire damaging natural resources, structures and increases the threat to public safety. The increased risk of human caused wildfires on the ranch can not be removed but can be reduced through management actions under consideration in the Interdisciplinary Management Plan. The proposed trail system and access road improvement will increase human activity in fire prone areas. At the same time, they will create potential fire breaks and improved access for fire suppression resources. Conducting fuels management treatments, such as prescribed burning, will reduce the fuel loading and fire hazard and break up the continuity of the fuels in and around the areas treated. The proposed action provides an appropriate setting and opportunity to educate the public on fire management and increase their acceptance and understanding of fuels management activities. The urban interface that exists on and adjacent to the SSR and ACRNA demands the continued aggressive initial attack of all unplanned ignitions.

4. Preservation And Protection of Cultural Resources

Prior to acquisition by the BLM, the ranch's buildings and structures were used for ranching operations. Since then, only the pastures, the irrigation features, and some of the buildings continued to be used as such. Currently, the buildings and irrigation features receive only minimal maintenance.

The primary focus for SSR public use is recreation and environmental education opportunities. These opportunities, however, are primarily structured for passive and non-motorized activities while maintaining the historic integrity of the ranch and setting. Generally, the majority of the ranch buildings are off limits to the public with the exception of two historic buildings to be used for educational activities. Recreational activities are designed to be compatible with the existing environmental setting and any picnic facilities to be constructed would be designed to blend with the visual and historic setting. The secondary focus for the SSR concerns the cultural resources – protecting them and the vegetation from fire and preserving and interpreting the significant resources of the Ranch. The continuation of some agriculture practices should assist in the preservation of the historic landscape.

A cultural resource inventory was conducted in 1995 and subsequently, preliminary assessments have been made to identify significant resources at the SSR. Final significance evaluation of the cultural resources will occur prior to the implementation of those activities associated with recreation, public health and safety, and vegetation management. To ensure that the historic buildings and structures are not affected, any alterations to the significant buildings and other structures, including roads, fences, ditches, and maintenance to ensure the preservation of the buildings would conform to the cultural resource management plan (CRMP) in preparation. The CRMP will incorporate the Secretary of Interior's Standards for Rehabilitation when addressing modifications to significant buildings and structures, the (National Park Service) NPS bulletins and guidelines when addressing the management and treatment of the rural historic landscape, and the BLM will develop a maintenance schedule to ensure that significant buildings and structures are preserved. Interpretative activities will also be incorporated in the CRMP.

Cultural resource concerns are not anticipated for the ACRNA.

Under the Management Plan, several activities including recreation and public safety are planned which could potentially impact cultural resources. Under the Plan costs have been identified for the implementation of the Plan, building and structure maintenance, and the hiring of law enforcement and a caretaker. If the Plan were not fully implanted (i.e., maintenance, monitoring, and the development of the CRMP), because of funding inadequacies, impacts to cultural resources are likely if the Ranch were opened to the public without safeguards as outlined in the proposed action. Replacement or demolition of buildings or structures would only take place after the buildings and structures are documented and evaluated for their significance while ensuring that these activities would not impact the historic landscape values.

Only one new trail is proposed for the SSR at the main ranching complex, which will be located south of the existing red house complex. The location of this trail will not impact any known significant cultural resource. Individuals utilizing the trails, parking areas, roads and picnic areas may be attracted to the historic buildings and structures, thus these features may be subject to vandalism. Only two buildings are open to the public however and then, only during planned events. Interpretive kiosks would be designed to blend in with the surrounding area while detailing the significant cultural resources. A volunteer caretaker and law enforcement officer are planned as part of the SSR staffing needs. The trail planned north of the Carson River Road will have no impacts on cultural resources as that no resources are present in that area.

Surface impacts resulting from the proposed maintenance of roads and designation of parking areas should be minimal. This is, in part, due to the use of existing roads or disturbed areas for access and developments. Interpretive signs will alert visitors regarding the dangers of entering, playing on or near the buildings and structures. Newly-constructed restrooms would conform to the historic character and placement of the existing buildings. A caretaker and law enforcement officer are planned as part of the SSR staffing needs.

Historic buildings would be protected from human-caused and natural fires. Management actions listed in the Interdisciplinary Management Plan are adequate to ensure this protection. Location and design for parking areas, restrooms and picnic areas would also enhance fire suppression. Generally, the proposed Fire Management actions will have a positive affect upon cultural resources whereby to ensure that the buildings, structures, and other significant features are not destroyed by fire resulting from human- or natural-caused fires. Also, any proactive activities to reduce fuels hazards would not impact significant cultural resources.

To ensure that historic buildings are maintained, a regular maintenance schedule would be implemented. Also, alterations and repairs to the buildings and structures would be performed in accordance with the cultural resource management plan. Ranching and agricultural operations would be preformed to ensure that historic structures are not impacted while maintaining the current landscape setting.

5. Vegetation Management (noxious weeds, threatened and endangered species, pastoral pursuits)

Riparian Vegetation

The proposed action, will have little or no impact on the surrounding riparian environment or upland areas if visitors stay on the paths. The natural cycle of flood events (such as flooding) will change the environment more than walk-in visitation. The proposed action will have a number of positive impacts, including the maintenance of riparian vegetation along the river corridor and noxious weed control. Stable upland plant communities and well managed irrigated pastures will reduce soil erosion. Controlling beaver populations would reduce the maintenance on the irrigation system. The positive impacts of the proposed action would include protection of older cottonwoods and ensuring survival of

young trees (from beaver damage), enhancing the buffer capacity of the irrigated pastures by encouraging dense brushy habitat along the margins of the pastures, and protection of the wetlands within the pastures. The proposed action would also ensure adequate in-stream flow in the Carson River thus supplying the necessary soil moisture conditions and periodic flooding capability to support and renew the Fremont Cottonwood and willow stands.

The proposed action should have little impact on the riparian corridor vegetation, as long as visitors stay on established trails, however there is a slight possibility that noxious weeds and other undesirable plants could be introduced to the riparian area through increased human activity (esp. pets such as dogs). Increased equestrian use along the Mexican Ditch road could introduce noxious weeds into the fringes of the riparian area, which could then spread into the main riparian area. A positive impact would be the closure of trail spurs and roads that are prevalent on the east side of the river, and restricting access on the west side. The two wetland riparian areas in existing pastures would not be negatively impacted by the proposed action.

Upland Vegetation

Positive impacts would occur to this resource from the closure of roads and trails which will allow vegetation to re-establish itself in previously barren areas. The proposed action will have little or no impact on the surrounding upland vegetation if public use is limited to existing trails and roads. The positive impacts resulting from the proposed action include rehabilitation of previously disturbed upland areas which will increase the acreage covered by upland vegetation.

Positive impacts of fire management actions will help maintain the majority of the existing vegetation community. Negative impacts of prescribed burns on the upland sites would be the temporary destruction of native vegetation communities and an associated increased opportunity for invasion of cheatgrass (*Bromus tectorum*) and noxious weeds. Burning needs to be conducted during periods when fire is least damaging to native plants and also meets the fuel reduction goals. The proposed action should insure that the mature cottonwood trees in the riparian river corridor are not threatened by wildfire, and that noxious weeds or other undesirable plants are not introduced to the area after a wildfire event.

Positive impacts resulting from the proposed action include providing habitat for wildlife through maintenance of the upland vegetation community or restoration of upland vegetation communities through planting native vegetation.

Cultivated Vegetation

The proposed action calls for limiting access to existing trails and roads, which will not impact the cultivated fields. Some negative impacts may occur from field trampling if educational tours are conducted during the agricultural growing season. If grazing is used to manage cultivated fields, pets and people may “disturb livestock” or if dogs are loose, they may chase and harm livestock. Implementation of vegetation treatments will conform to the guidelines within the CRMP to address

cultural landscape issues. The Positive impact of the proposed action, to keep dogs on leashes, will reduce any conflict with livestock. Most of the proposed actions would have no impact on cultivated vegetation.

Acquisition of water rights for irrigation water would assist in the maintenance the existing cultivated vegetation, and if additional water can be acquired, old fields that were once cultivated, could be brought back to production. Implementation of good farming practices will maintain or improve hay production and prevent invasion by weeds. Agricultural burning and/or grazing will help maintain the hay fields. Acquiring water would allow for the continuation of maintaining the cultivated vegetation on the SSR.

The Positive impacts would be burning to enhance wildlife habitat by enhancing the structure and vigor of the cultivated vegetation. The Negative impacts of the proposed actions to exclude farming practices in various location on the cultivated fields and develop wetlands, would reduce the production of hay from the ranch. Forage production may be reduced in some locations with an increase in cover and numbers of wildlife that may consume forage from the fields or use the fields for occupation. Improve wildlife habitat may subject some areas of the cultivated fields to over use by wildlife. An example could be an increase in grazing by Canadian geese and a reduction in production on the cultivated fields. An increase in vegetation cover along fence lines may increase the rodent population, which in turn may reduce the production of the hay fields due to digging and foraging. Most of the other proposed actions will have little to no impacts on the cultivated vegetation.

The Positive impact of the proposed actions to reduce or stop non-point source pollution would improve the management of the cultivated vegetation and irrigation structures. The positive impacts are essentially the same as in the Vegetation Management and Recreation sections. No negative impacts are foreseen.

6. Wildlife Habitat Management (including threatened and endangered species)

All of the proposed wildlife habitat projects are aimed at qualitative improvements in existing habitats rather than the establishment of any new habitat types. They are designed to provide missing niches in these habitats lost through past land use practices. Specifically, the grazing/haying exclusion and tree planting proposed for Area #1 *(See Wildlife map) will provide for early stage cottonwood forest habitats that are missing in the predominantly even aged, old growth cottonwood stands present. The seedings proposed for Areas #2 and #4 * (See Wildlife map) will re-establish the short to moderate height herbaceous understory that is currently missing, and allow use of the area by those species requiring this kind of habitat at some point in their life cycle. Dense brush thickets of willows, wild roses and similar plants are another habitat component seriously lacking, and the proposal for Area #3 is directed at filling that deficiency. The Area #5, 6 and 7 (See Wildlife Map) project work is designed to improve the quality of existing wetland areas.

Taken in sum, this wildlife habitat improvement work is not expected to increase the present species diversity by more than a handful of new species. However, the likelihood of those species using the habitats to successfully reproduce will be greatly enhanced. Additionally, habitats will be available to support more individuals of those species already present.

Threatened, Endangered and Sensitive Species

No project work directed specifically to this category of wildlife is planned at SSR or ACRNA. There will be, however, improved potential habitats for all of the species identified in the Affected Environment, except the osprey. It is not possible to determine whether or not any of these species will colonize the area or make any use of the improved habitats.

The designation and construction of additional trails, particularly on or leading to Prison Hill, will have negative impacts on the mule deer using the area. These impacts are directly related to the amount of increased visitor use those trails generate. The brushfields the proposed trails would traverse are used essentially year long by the deer. The area has been closed to general public use for a number of years and this is the level of human disturbance to which the deer have become habituated. It is not possible to project a direct disturbance to loss of habitat quality equation, but monitoring should be initiated on both deer and trail use for subsequent evaluation. The remainder of the management actions listed under the recreation issue are not expected to cause impacts of any real consequence.

The management actions proposed for Goals 5-1 (Maintain a healthy riparian corridor on the SSR) will have either no impacts on the wildlife resources or slight beneficial impacts in limiting human disturbances to wildlife. The acquisition and use of irrigation water under Goal 5-3 (Keep all or part of the SSR fields under irrigated agriculture.) is necessary for the proposed wetland habitat enhancement and will have significant beneficial impacts on wildlife habitat throughout SSR. The prevention of noxious weed invasion will have a beneficial impact on wildlife habitat, as will pursuing additional acquisition opportunities. The proposed annual farming operations on SSR should have very minimal wildlife habitat impacts compared to the present situation. Goal 5-4's (Manage upland plant communities.) objective of managing the upland communities to achieve late seral condition will have long term significant beneficial impacts on the wildlife habitats present there.

Acquisition of in-stream flow rights in the Carson River where it flows through SSR could have some limited beneficial impacts to the aquatic habitats present. However, a much larger section of the river would have to be improved before any significant changes in the short river reach at SSR would be realized. The remaining actions proposed for this issue would have no impact on wildlife habitats.

The methods proposed for limiting non-point source pollution are also sound land management techniques and, as such, will have beneficial impact on the wildlife habitats present.

The implementation of Goals 9-1 (Manage in partnership with adjacent landowners to enhance the recreational opportunities at the SSR.) and 9-2 (Manage land use authorizations for rights-of-way to protect natural resource values.) will have minimal impacts, either negative or beneficial, on wildlife habitats at SSR or the ACRNA. Goal 9-3's (Seek opportunities to protect and enhance the existing rural character of low lying areas in Eagle Valley for the use and enjoyment of current and future generations.) Implementation, however, could have significant beneficial impacts extending well beyond SSR and the ACRNA. Any acquisition, either of a conservation easement or fee title, would help preserve the little remaining wildlife habitat in Eagle Valley. With each new development or expansion, that remaining habitat becomes more and more vital to the continued existence of many wildlife species in the valley.

7. Water Management

Acquisition of in stream flow water rights to ensure the continued or improved health of the river's aquatic community on the SSR is a complex and sensitive issue. The complexity arises from both the socio-political aspects of obtaining water, and from determining just how much water is needed to maintain what is there and how much more will be needed for any significant improvement.

As far as the aquatic community is concerned, the more water that can be left in the river during the summer, the more complex and productive that community can become. But as in many other areas of the west, water to do that is just not available and some less than optimal level of development must be selected. Current summer flows obviously maintain what is currently there, so the question becomes how much more is needed for some substantive improvement. Albeit subjective, an improvement in the aquatic community could readily be evidenced with an increased summer flow in the three to five cubic feet per second range. This would allow a healthier, more diverse and productive aquatic community to develop, reduce water temperatures and increase the amount of dissolved oxygen present.

Obtaining an increased summer base flow in the Carson River will also allow the development of a more complex and productive riparian vegetation community, with a consequent increase in the diversity, structure and quality of the wildlife habitats present. The SSR's current drinking water system poses no impacts, either beneficial or harmful, to either issue.

The availability of safe drinking water for the public on SSR is a much simpler issue: until such is available, the existing water taps and hydrants must be locked or otherwise be made unavailable. The lack of safe drinking water will limit many other activities until the SSR is connected to city water or the current system can be upgraded or replaced.

8. Non-Point Source Pollution Management (Water Quality, Flood Plains, Soils)

The proposed action could have some negative impacts on soil stability by increasing erosion rates. If new paths/trails are improperly placed they could channelize surface runoff and cause rilling or gully

erosion. This would result in increased sediment movement towards the Carson River. If new paths and trails are properly placed, impacts would be negligible. The Trail Head Staging area (OHV and other uses) on the east side of the river could negatively impact vegetation, causing barren areas which could result in sheet flow, rill erosion, or gullying. The short term effects of prescribed fire treatments would also include the creation of areas devoid of vegetation. The severity of these impacts on erosion and sediment production will depend on the success of rehabilitation/seeding efforts. Unsuccessful re-vegetation could allow non-native plant species including noxious weeds to invade both uplands and riparian areas, causing an increase in surface runoff and associated increases in erosion and sediment production. Positive impacts on erosion rates and sediment production would result from closure of trail spurs and roads that are prevalent on the east side of the river, and restrictions on public use and access on the west side. A third or more of the proposed trails are in the flood plain of the Carson River. This may inadvertently cause a small but insignificant adverse impacts to the riparian and woodland areas. Also, a potential of flash flooding exists along parts of the trails near the river.

The proposed action will have a number of positive impacts, including the maintenance of woody riparian vegetation along the river corridor and noxious weed control. Stable upland plant communities and well managed irrigated pastures will ensure that accelerated runoff from uplands, which would adversely affect the riparian river corridor, would either not occur or would be buffered by the pastures. Management of the riparian corridor to achieve Proper Functioning Condition would protect the Carson River from excess sediment from these areas during normal flow events, and minimize sediment load during large events.

The positive impact of the proposed action would include protection of older cottonwoods and ensuring the survival of young trees, enhancing the buffer capacity of the irrigated pastures by encouraging dense brushy habitat along the margins of the pastures. A positive impact of the proposed action would be to ensure adequate in-stream flow in the Carson River, thus supplying the necessary soil moisture conditions and periodic flooding capability to support and renew the Fremont Cottonwood and willow stands along the riparian corridor. Keeping these woody species viable would protect the Carson River from excess sediment from adjacent areas during both normal and high flow events. This would reduce non-point sources of sediment introduction into the river.

9. Relationships to Adjacent External Areas

The implementation of the proposed action will impact adjacent external areas. One impact will be that adjacent private land owners will have a level of certainty that the public land in the SSR will largely remain in their present state. Adjacent private land owners will view the SSR as open space or greenbelt. When the land was in private ownership there was the possibility that the land could have been developed for housing. Non-development will not detract from local property values and may serve to increase them. Open space and natural areas will also provide a positive quality of life element.

A negative impact could result from trespasses onto private land by recreationists not familiar with the boundaries of the SSR and ACRNA. This impact would be greatest more along the riparian areas

where the majority of public use is likely to occur. The extent of this problem will probably be inversely proportional to the level of signing done by the BLM and adjacent private property owners. Over time as users return and become more familiar with the area this problem would decline. Increased recreation use of the SSR will increase traffic on the Carson River Road and Mexican Dam Road by an estimated 20% and will continue to increase as population in the study area expands. Signing the boundaries of the SSR is expected to reduce trespass occurrences.

10. Management of the Ambrose Carson River Natural Area

The implementation of the proposed action on recreational opportunities at the ACRNA will be mostly positive. Improved parking facilities will increase public safety, decrease soil erosion and promote bus parking for Environmental Education (EE) opportunities. Routine maintenance of the gravel access road and parking areas will support these positive impacts over the long term.

Public awareness of the recreational opportunities available at the site, including resource protection, public safety and sanitation will increase with the implementation of an effective signing program. To a small degree, signing along the river corridor may negatively impact the visual character of the area. Effective signing will increase law enforcement's capability of enforcing regulations. Increased law enforcement at the site will increase public safety and reduce unauthorized activities which ultimately negatively impact users at the site.

Recreational opportunities will increase and resource protection will improve with the construction of a loop trail system. The loop trail design will eliminate the current one-way trail design thus enhancing user experience and satisfaction. The loop trail design will decrease impacts to existing trails, will allow the user to experience the river environment and will improve interpretive capabilities along the river.

Visitor use may decrease at the ACRNA as the emphasis on Environmental Education (EE) increases at SSR. However, demand, scheduling conflicts, accessibility, entrance fees and seasonal (wildlife) constraints may limit EE opportunities at SSR, thus placing the focus back on the ACRNA. Moreover, City plans to construct a foot bridge over the Carson River would link the City's Eagle Valley Trail System to the ACRNA. Once constructed, the footbridge would place an increased emphasis on the ACRNA as one of several primary staging areas for the City's trail system. Higher visitation rates would be expected which would equate to increased impacts on the facilities and resources.

Acquisition of lands into public ownership adjacent to higher visitation rates would be expected which would equate to increased impacts on the facilities and resources. The ACRNA may increase the importance of this area as a staging area or central trail hub. Again, higher visitation rates would be expected which would equate to increased impacts on the facilities and resources.

11. Socio-economic Resources

The estimated environmental consequences from each of the alternatives considered in this Plan are presented below, by the identified management action, as appropriate.

Recreational benefits accruing from the actions identified in this management proposal will provide the most quantifiable economic benefits. Visitation, which includes activities such as birdwatching, environmental education classes, individual and group picnics and gatherings, and photography, is, among other elements, a function of population and the quality of the site. While it is difficult to predict visitation levels, a recent study completed at Stillwater National Wildlife Refuge (NWR) in Fallon, Nevada estimated visitation at that site based on the northern Nevada's population. Applying the assumptions used by the Stillwater NWR model to the SSR suggests that visitation levels could total 7,300 use days per year or 20 per day, based on the study area population. The site may not realize this level of usage for several years, until visibility, publicity, and facilities are fully developed.

Recreation usage contributes to a region's economic base – primarily in terms of local expenditures for such items as gasoline, food, lodging, and equipment. These expenditures (which have been adjusted for inflation from the time the data was first collected) range from \$15.80 (US Fish & Wildlife Service, July 1997) to \$24.38 (BLM, Range Improvement Assessment model data) per person/day. The aforementioned University of Nevada (UNR) study at the Refuge estimated expenditures at \$21.47/person/day (source: UNR Stillwater NWR Study, December 1998). These expenditure figures relate primarily to activities such as birdwatching, wildlife viewing, casual fishing, picnicking, and the like. Expenditures on dispersed recreation and recreation activities at developed sites are somewhat lower – \$7.16 to \$12.60 per user day.

While this expenditure data was not collected “on-site” at the SSR, the estimates are likely to represent an appropriate range of values on which the benefits to the local communities may be calculated. It is important to note that these expenditures do not represent an individual's “willingness to pay,” which is the maximum amount that a consumer of a good or service will pay and a measure of how much the buyer or consumer values the good or service. Willingness to pay measures are, by nature, greater than the expenditure outlay to enjoy or “purchase” the good or service.

Under this proposed action, direct recreation expenditures by users visiting SSR and the ACRNA may total about \$115,000 annually – assuming that half of the visitors engage in wildlife viewing activities and the other half, dispersed recreation activities. These direct expenditures may be translated into regional economic impacts, or what is typically referred to indirect impacts. Through the use of economic multipliers, which show the regional economic effects resulting from changes in the demand for a commodity or group of commodities, the regional economic effects total about \$175,000 annually (direct, indirect, and induced effects).

Contracted Hay Production Leases (Vegetation Management)

As part of the proposal, an operator (under contract) may lease part of the irrigated acreage on the Ranch for hay production and possibly limited livestock grazing. Depending on the arrangement negotiated, the Ranch will continue to contribute to Nevada's agricultural base and provide income to both the lessee and the BLM (conditional on the agreement negotiated). Revenues to both parties will likely be conditioned on market prices, however, at yields of 160 tons, this totals about \$14,000 in gross proceeds. Similar lease arrangements for limited livestock grazing may also be considered.

Other Values

Other, less quantifiable (but equally important) benefits, are likely to emerge as a result of the proposed action. For example, the establishment of a wildlife migration corridor between the Prison Hill area and the Pine Nuts mountains will likely help to sustain a viable deer herd and provides relatively undisturbed habitat and forage in the irrigated pastures and riparian areas.

In terms of maintaining the SSR as functional open space, society gains from the cultural resource value associated with keeping a "part of the past" alive. Visitors gain insight into past cultural practices on one of the last large expanses of land in the administrative boundaries of Carson City.

In addition, the "intrinsic" value associated with open space associated with the SSR and the ACRNA adds to society's feeling of well being. Elements contributing to SSR's intrinsic nature include quality of life and environmental quality, but also embrace aesthetic and scenic values. Corridors of natural and unspoiled scenic vistas, a sense of openness, and other similar features and values collectively contribute to making higher-density living more attractive. As surrounding areas develop and the amount of open space decreases, the intrinsic and aesthetic value of the remaining open space increases.

In some cases, the proximity of public lands -, i.e., open space – to developed private lands increases the property tax base for local communities. This holds generally, because those large expanses of undeveloped lands held in the public trust add to the appraised value of the private properties on which taxes are assessed. Proximity to open space is seen as an important benefit (Phyllis Meyers, *Green Sense*, Vol. 3, No. 1).

Payment-In-Lieu-Of-Taxes

Since this acquired land will add to the public land acreage on which county Payment-In-Lieu-Of-Taxes (PILT) are calculated, such payments will likely increase and offset the property taxes that were collected when the lands were held privately.

Population, Employment and Income

It is highly unlikely that any action taken under this proposal will directly result in population growth beyond the annual rate that is currently projected for the area. Regional employment may increase by one or two, depending on operational personnel needs for managing the SSR and ACRNA; the resulting personal income from the new hires will very slightly contribute to the income level for the area.

Overall regional economic benefits may occur over the 5 years time frame for completing improvements designed to bring the Ranch to acceptable public use standards.

Alternative A

1. Recreation

This alternative, while the most passive in recreation use, will still provide the same variety of diverse recreation. There will be more walk-in visitation (only one parking lot near the entrance) and this does not preclude walking on any of the trails, to the fields or the river from the westside. An estimated decline in visitation of about 20% is expected from those who do not wish to walk an extra mile to the “red house” complex. Visitors will still be able to drive to and then walk to the river from either the eastside or from the Carson River Park. Vehicle access the Mexican Dam road will remain the same. Special guided activities will allow parking in the special events parking lot at the “red house” complex area.

2. Public Health And Safety

Same as Management Plan except that with Issue #5 (vegetation management) the reduced level of agricultural operations, will result in a reduction in the attendant risk to public safety.

3. Fire Management

Same as Management Plan but a lower impact overall.

4. Preservation And Protection of Cultural Resources

Impacts on historic structures will be lessened, since main parking will be away from the “red house” complex and only on special occasions would there be parking at the “red house” complex. Given the likelihood that fewer visitors are willing to walk, the cultural resources will not receive as many visits. Same as the Management Plan regarding the development of a CRMP in which and no significant buildings and structures would be impacted and the area would be monitored by law enforcement and the caretaker.

It is likely that less impacts would occur to the historic buildings and structures since the main parking area will be farther away from the red house, and only on special occasions would there be parking at the red house complex. Also less recreational and environmental activities are proposed, which may have less impacts to cultural resources, however, the this alternative calls for less proactive activities regarding resource awareness to the public. Because no BLM resource specialists, including the cultural resources specialist, coordinating and monitoring of the cultural resources would be reduced at the Ranch, thus leading to potential impacts.

5. Vegetation Management (noxious weeds, threatened and endangered species, pastoral pursuits)

Reducing irrigated fields to 25 acres could result in increased opportunities for noxious weed invasions in the unirrigated fields. The positive impact from Alternative A is in the reduced cost of managing the cultivated vegetation. Native vegetation could be planted in the fields to provide for a more natural look to the property. Under this alternative the riparian areas could possibly expand slightly, otherwise the impacts are the same as in the proposed action.

The negative impact of the proposed action if cultivated land were limited to 25 acres, is that such a small amount of acreage would probably not be economically feasible to farm; i.e., it may be too small to produce and harvest any vegetational resources off of the “green” cultivated fields. Those fields that would no longer be irrigated would need to be planted to a dry land vegetation to prevent weeds and soil erosion.

The positive impact of the proposed action (reducing or eliminating non-point source pollution) would improve the management of the cultivated vegetation and irrigation structures. With the application of less water and reduced acres of cultivated vegetation, non-point source pollution may increase until dryland vegetation is established in the fields.

6. Wildlife Habitat Management(including threatened and endangered species)

Same as for the proposed action, except that human disturbances to wildlife will be substantially reduced.

If irrigation is discontinued on approximately 100 acres there would be an immediate loss of both the meadows created by that irrigation and the wetland areas formed as a result of irrigated hay production and attendant drainage. Loss of these habitats would impact nearly every wildlife species using SSR at one time or another in their life cycle. Conversion of these fields to native shrub/grass communities would partially mitigate this loss, but brush/grass communities are much more readily available in the vicinity to wildlife than are meadow and wetland communities. Other impacts are same as those identified for the proposed action.

7. Water Management

Depending on irrigation practices, the impacts associated with this alternative will be as discussed for the Management Plan.

8. Non-Point Source Pollution Management (Water Quality, Flood Plains, Soils)

Same as the Management Plan

9. Relationships to Adjacent External Areas

Same as the Management Plan

10. Management of the Ambrose Carson River Natural Area

The focus on Environmental Education opportunities at SSR would diminish. Subsequently, use of the ACRNA for EE programs will remain the same or increase over time. Total visitor use at the ACRNA is currently estimated at 1,100 visitors a year. Under this proposal, an increase of EE programs could increase visitor use at the ACRNA by 20% over the next five years.

11. Socio-economic Resources

Since this alternative to the Management Plan focuses on resource management, rather than recreation management, sites (parking lots and restrooms, for example) for developed recreation will be minimized. Expenditures on developed recreation activities will likely be reduced somewhat, possibly by 20 percent from the proposed action; dispersed recreation activities will likely not be measurably reduced, nor will activities such as birdwatching and passive enjoyment of the scenic and aesthetic resources. Assuming a 20 percent reduction in developed recreation activities (such as picnicking and formal, on-site environmental education instruction), the direct and indirect economic contribution to the region's economy will decrease by about \$35,000 annually.

Contracted Hay Production Leases (Vegetation Management)

Conditional on the appropriate management actions taken to control or eradicate noxious weeds, revenues from the hay lease may not change from the Management Plan. Alternatively they may be reduced by 98 percent or so if the irrigated acreage is limited to 25, rather than 125 acres.

As a resource management alternative, those more difficult-to-value benefits associated wildlife, vegetation, and cultural resources are likely to increase. At present, it is difficult to ascertain the extent to which those values would change.

Other Values

Selection of this Alternative will not measurably change the values associated with open space as identified in the Management Plan.

Payment-In-Lieu-Of-Taxes

PILT payments will be identical to the Management Plan.

Population, Employment and Income

No change in levels from that projected for the Management Plan are anticipated.

Alternative B

1. Recreation

Same as proposed action along Prison Hill, south of the "red house complex" and along the river on both sides the perimeter. The core area "red house complex and irrigated fields" will be restricted to what ever the concessionaire activities are designated. There will be more intense use of the resources

in the core area both cultural and natural. At times up to 100 people a day could visit and tour a possible farm attraction or attend the environmental education camp. This more focused use will require monitoring by the concessionaire and BLM for non-point pollution sources, erosion factors, drinking water quality and the wear and tear of historic structures being used. All types of recreation diversity will still remain.

2. Public Health And Safety

Same as Management Plan except that along with the addition of facilities to the area, the risk to public safety will increase. Monitoring of the public activities and facilities inspection will have to be conducted with greater frequency. Any increase in the level of agricultural activities will also increase the risk to public safety.

3. Fire Management

Same as Management Plan

4. Preservation And Protection of Cultural Resources

Under this alternative, impacts to the historic buildings, structures and the cultural landscape are anticipated because additional buildings and structures may be constructed to accommodate the working ranch and increased levels of visitor use. Depending on this proposed actions under this alternative, mitigation of adverse effects, such as altering current buildings, structures, roads, and pastures to accommodate additional facilities, may not be possible. To mitigate the historic integrity of this small 1920-1950's ranch complex would be impaired. Any improvements to the current historic buildings and structures would need to conform with the CRMP. Additional care for historic barns, sheds, and fenced areas would require constant maintenance by the concessionaire to prevent disintegration of cultural integrity due to visitor use. However, use of SSR as a working ranch may provide additional income for maintaining the historic buildings.

If no new buildings were constructed, the working ranch attraction should not change either the views significantly nor the historic use of the fields. The dispersed recreation use in the surrounding areas should be the same as the Management Plan regarding cultural resource preservation. Cultural resource concerns are not anticipated for the ACRNA.

5. Vegetation Management (Noxious Weeds, threatened and endangered species, pastoral pursuits)

Upland Vegetation

Similar impacts as the Management Plan. There would be less overall impacts to vegetation with the exception that noxious weeds on previously cultivated land may spread to the upland sites. The exception would be the increase in livestock numbers at the ranch. There would be a need to intensively manage the cultivated vegetation to maintain the pastures. Additional work may need to be done to improve the pastures (reseed, fertilize) for grazing use.

The positive impact of the proposed actions (reducing or eliminating non-point source pollution) would improve the management of the cultivated vegetation and irrigation structures. With less water and cultivated vegetation acreage, non-point source pollution may increase until dryland vegetation is established in the fields.

6. Wildlife Habitat Management(including threatened and endangered species)

There would be reduced levels of human disturbance to wildlife in the brushfields habitat because of lower levels of trail construction. This reduced level of disturbance could extend through all of SSR if entrance fees are imposed. This slight beneficial impact will be more than offset by the construction and operation of an EE camp in the brushfields habitat, with consequent direct loss of habitat and indirect loss of surrounding habitat utility. The impact zone radiating from the EE camp will depend upon its frequency and intensity of use; but mule deer use in this zone will almost assuredly be precluded and ground/shrub nesting by birds will be severely curtailed in this zone.

The additional cattle, horse and sheep use of SSR under this proposal would have direct adverse impacts to the utility of the meadow habitats through closer grazing than would be the case under the proposed action, as well as from the disturbances caused by increased livestock numbers and duration of stay. Should horse boarding occur, this disturbance factor is elevated to a higher level yet as the horses are exercised, probably along SSR trails and/or adjacent properties.

7. Water Management

Depending on the attraction picked there could be more water use on the wells. Otherwise, the impacts associated with this alternative will be as discussed for the proposed action.

8. Non-Point Source Pollution Management (Water Quality, Flood Plains, Soils)

Under this alternative there is a greater possibility of non-point source pollution reaching the riparian river corridor area, and then the Carson River, due to increased farming and ranching operations. Otherwise the impacts are essentially the same as in the proposed action.

9. Relationships to Adjacent External Areas

Same as the Management Plan

10. Management of the Ambrose Carson River Natural Area

Same as Alternative A in that it would receive more visits by environmental education groups since the “ranch complex” would be a fee situation with the attraction or education camp.

11. Socio-economic Resources

Under this alternative, dispersed recreation use (hiking, birdwatching, etc.) and expenditures will likely remain about the same as the identified under the Management Plan, increasing in proportion to increases in regional population levels. Structured Environmental Education and a “Farm/Ranch

Attraction” concept would increase developed site recreation, possibly by 20 percent each year for 4-5 years, as those sites, facilities, and programs are placed into operation and publicity and visibility increases. After 5 years, total direct recreation expenditures may reach approximately \$186,000 annually. These direct benefits correspond to about \$280,000 in regional economic benefits. In addition, there would likely be some regional benefits from the operations involved with the establishment of a formal Environmental Education facility. Not only would the local economy benefit from the construction activities associated with the facility, but upon completion, the annual operating and maintenance expenditures.

Contracted Hay Production Leases (Vegetation Management)

Conditional on the type of agreements in place, income for offsetting operating expenses is anticipated from both the contracted haying operation and the cattle grazing over the allotted season. Anticipated revenues from these activities are expected to be similar to those estimated for the Management Plan.

Other Values

Selection of this Alternative will not measurably change the values associated with open space as identified in the Management Plan.

Payment-In-Lieu-Of-Taxes

PILT payments will be identical to the Management Plan.

Population, Employment and Income

No change in levels from that projected for the Management Plan are anticipated.

D. Mitigation

To educate as well as warn the public of potential flood danger, two recommendations are offered:

1. For all proposals, the trail in the flood plain should be signed emphasizing respect for the woodland and riparian values and to be cognizant of flash flooding.
2. For the long range management the trail(s) should be designed and placed well above the flood plain.

To educate as well as warn the public of potential fire hazards, two recommendations are offered:

1. Initiate fuels reductions projects to create natural fuel breaks. While this may reduce habitat for various wildlife species that provide food for nesting raptures, it may also increase habitat for raptors while hunting.

2. In either case, no smoking or open fires signs will be posted and adherence enforced in areas visited by the public.

E. Residual Impacts:

Proposed Action

Implementing the proposed action may have an undetermined impact on cultural resources. Opening historic structures to the public will lead to some damage of the sites from extra direct and indirect physical contact. Indirect impacts could be damage to wooden structures from dust, weight and exhaust fumes due to additional driving and parking near the structures. More direct impacts would occur to the visual and physical characteristics of the Ranch. Changes would occur over time from additional trails, picnic facilities, capital improvements, vandalism from visitors and even the replanting of trees are unavoidable in a recreation site.

Alternative A

Implementation of Alternative A and the applicable specific mitigation measures are not likely to have residual impacts on wildlife, fire danger, cultural resources or any other resource under consideration in this environmental assessment.

Alternative B

Implementation of Alternative B may have an undetermined impact on cultural resources in the same manner as the proposed action. The core area of the Ranch would be the most physically and visually changed if structures must be added or modify to handle the concessionaire activities.

E. Cumulative Impacts:

Regional population growth, replacement of agricultural lands with housing developments and increased demand for recreation opportunities in the vicinity of Carson City are considered in the assessment of cumulative impacts associated with the proposed action. The open space element of the Carson City Master Plan (CCMP) and The Carson River Master Plan (CRMP) acknowledge the need for recreation opportunities and open space in the Carson City area. BLM's Carson City Urban Interface Plan Amendment (CCPA) also acknowledges these needs and responds by identifying 15,690 acres of public lands in the interface area for retention and management for open space, visual, recreation, watershed and wildlife values. The proposed action for the SSR conforms with specific provisions in these three plans. No adverse cumulative impacts are expected to result from the implementation of the proposed action.

Population growth in the Carson City area has increased demand for recreation opportunities, sites and pressure on public lands in the area. Implementation of the proposed action for SSR and ACRNA would supply additional opportunities for environmentally responsible recreation in the Carson City Area. Recreation opportunities provided at the SSR and ACRNA combined with development of the

Carson River Park and a trail system in the river corridor, by the Carson City is expected to partially meet these additional needs. The proposed action also provides convenient access to public lands in the Pine Nut Mountains and on Prison Hill. Loss of access points to the public lands in these areas is a developing issue in the Carson City urban interface and elsewhere in the region. No adverse cumulative impacts to recreation opportunities or access to public lands would result from implementation of the proposed action.

Population growth and replacement of agricultural lands with residential housing has a negative impact on wildlife habitat in the Carson City area. As agricultural lands are replaced with housing developments wildlife habitat is destroyed. Provisions in the three plans described above would protect wildlife habitat in areas identified for use as open space and in the Carson River corridor. By maintaining active agricultural operations on the SSR and protecting riparian and upland vegetation communities the proposed action will not contribute to the loss of wildlife habitat in the Carson City area. Wildlife and properly managed recreation activities can coexist on the SSR without major adverse impacts to wildlife. Implementation of the proposed action is not expected to contribute to adverse cumulative impacts to wildlife habitat in the Carson City area.

Management actions identified in the proposed action are not expected to contribute to cumulative adverse impacts on the issues of public health and safety, cultural resources, fire management, vegetation management, water management, non-point source pollution or relationship to adjacent external areas.

F. Monitoring:

Proposed Action: A project of this size could require extensive manpower and time commitments for staff and/or volunteers.

Alternative A: Few monitoring needs have been identified for this action.

Alternative B: A project of this size could require extensive manpower and time commitments for staff and/or volunteers.

V. CONSULTATION & COORDINATION

A. LIST OF PREPARERS/REVIEWERS

Chris Miller, Outdoor Recreation Planner and Team Lead

Mike McQueen, NEPA Coordinator

Gary Bowyer, Archaeologist

William Brigham, Wildlife Biologist

Arthur Callan, Outdoor Recreation Planner

Tom Crawford, Economist

Jim DeLaurel, Soils Scientist/Noxious Weed Specialist

Walter Devaurs, Wildlife Biologist
Charles Kihm, Lands Specialist
Dan Jacquet, Assistant Manager Renewable Resources
Chuck Pope, Acting Assistant Manager Non-renewable Resources
Tim Roide, Acting Fire Fuels Specialist
Ken Simpson, GIS
Bashir Sulahria, Water Hydrologist
Steep Weiss, Assistant Manager Renewable Resources
Stan Zuber, Law Enforcement
Tracey Wolfe, Range Conservationist

B. Persons, Groups or Agencies Consulted:

Steve Kastens, Director, Parks and Recreation Carson City
Mark Kimbrough, Carson River Advisory Committee
Vern Krahn, Planner, Parks and Recreation Carson City
Walt Sullivan, Director Community Development Carson City
Kevin Walsh, Pine Nut Mountain Trails Association
Tom Abbett, Silver Saddle Task Force

VI. RESPONSE TO COMMENTS

Nine comment letters regarding provisions in the Draft Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area were received draft management plan.

Comment letters from the following individuals and/or organizations were received:

1. Reta Hanks, Carson City Nevada..

Response: When the SSR opens to the public and trails are constructed on the east side of Prison Hill it will be possible to hike from the west side of Prison Hill to Lloyd's Bridge. A connecting trail from Lloyd's Bridge to Riverview Park is included in the City's Eagle Valley Trail System Plan. However, completion of this stretch of the trail will require acquisition of easements across private property.

2. Robert R. Kautz, Ph.D., Kautz Environmental Consultants, Inc., Reno Nevada.

Response: We have made the suggested corrections in wording in the Cultural Resources section of the plan.

The Cultural Resources Management Plan will consider development of an oral history as part the information base for use in managing cultural resources on the SSR.

Although cultural resources are an important component of the SSR, the ranch was acquired primarily for its recreation and riparian values. This is evident from our review of the Perma-Bilt Homes/ALC Land Exchange Environmental Assessment, Finding of No Significant Impact and

Decision Record ((EA# NV-054-97-026). However, we are confident that management of the ranch for its recreation and riparian values can be accomplished without significant adverse impacts to the cultural resources also found on the ranch. Development of a cultural resources management plan will assure protection of these resources from activities taken to benefit other programs and resources.

The ranch currently has no official designation as a “site,” “complex,” “historic district,” or “historic agricultural landscape,”. Designation of the SSR will be considered during development of the cultural resources management plan.

3. Anonymous, Carson City, Nevada.

Response: Thank you for your concerns regarding management of the SSR. The Management Plan includes provisions to keep the majority of the agricultural fields in production and green, provide recreational opportunities for a wide range of public land users, and allow a variety of environmental educational activities on the ranch. The plan also includes provisions for caretaker housing. Thank you for your comments and suggestions regarding appropriate qualifications for the caretaker position.

4. Becky Quigley, Virginia City, Nevada.

Response: Thank you for your positive comments regarding the SSR Management Plan.

5. Walter Sullivan, Community Development Director, Carson City, Nevada.

Response: Thank you for your positive comments regarding the Management Plan for the SSR. We want to thank the Carson River Advisory Committee, the Carson City Parks and Recreation Department, Carson City Community Development, members of the Silver Saddle Task Force and many others for their hard work and participation in this joint planning effort. We look forward to continuing and expanding our partnerships with the City and other groups to cooperatively manage this important area for residents and visitors alike.

6. Vern L. Krahm, Parks and Recreation Department, Carson City, Nevada.

Response: Thank you for your positive comments regarding the Management Plan for the SSR. No decisions have been made regarding charging fees for access to the ranch. We will work with the City and our other partners to determine if and under what circumstances fees should be charged for access and use of the SSR. However, specific provisions have been included in the Management Plan that exempt trail system users from any future access fees that may be charged.

Provisions in the Management Plan will keep the majority of agricultural fields in production and green. We look forward to working with the City and our other partners to provide a long-term supply of water needed to keep the fields green and productive.

BLM plans to work with our partners to develop a creative approach for implementing management actions on the ranch. We also believe that establishment of a nonprofit group may be an effective way of accomplishing our management goals. We look forward to working with the City and our other partners to achieve our common goals for management of the ranch.

Again we want to thank the City and our other partners for their participation in this joint planning effort. We will continue to work with all our partners to acquire needed funding and manage the SSR in a responsible and thoughtful manner.

Thank you for providing numerous editorial comments and suggestions. We have incorporated these suggestions where appropriate.

7. Mark Kimbrough, Carson City, Nevada.

Response: Thank you for your comments and suggestions regarding the Management Plan for the SSR.

Goal 1-1. Many of the existing unauthorized trails on the east side will be closed to OHV/ORV traffic (see pages 10 and 15 in the plan). Fencing the ditch around the group picnic area is a definite safety concern and Issue #2 -2 stresses that facilities will be accessible, safe and functional for visitors. The BLM will work with adjacent landowners (both private and public) as stated in Issue 9 to provide a better implementation of the long-and-short term planning goals.

Goal 2-1. Dogs will be on a leash west of the river at all areas. The current plan states dogs can be off leash on the east side at both the SSR and ACRNA. However, the plan also states that if resource problems occur due to this policy, then all section of SSR and ACRNA will require dogs on a leash (Goal 2-1).

Goal 2-2. The possible campground host at the SSR will be provided basic services and a designated living area. Your suggestion of Americorps as well as other volunteer programs are excellent examples of partnership and assistance.

Goal 6-1. The BLM has worked with NDOW at the SSR regarding the Partners in Flight (1997-98) program. NDOW has the lead in this program and the BLM assists them whenever possible.

Goal 7-2. The SSR and the Carson River Park's Master Plan show the major facility development on the west side. This west side location was chosen due to the accessibility of obtaining water, whereas, the east side would not provide cost accessible water allocation or maintenance of such facilities.

Goal 8. Protecting the riparian corridor is a major focus at the SSR. Goal 2-1 state that in the Federal Register Supplemental Rules to be published: that access to the river from the eastside will

be by foot, there will be road and trail closures on the eastside above the green vegetative line, that 1/4 mile of riparian area on the westside will be closed to the public except for special BLM led activities/projects, and the park will be closed to nighttime and camping activities to protect resources.

Goal 10-2 The SSR and ACRNA Master Plan have included the possible expansion of trails along the eastside at ACRNA. These trails could now expand into the previous mining area

8. Richard T. Heap Jr., Regional Manager Western Region, Nevada Division of Wildlife.
Response: Thank you for your comments regarding the Management Plan for the SSR.

Issue #2. The Management Plan provides for Public access to the Carson River along the entire east side of the river and portions of the west side on the SSR The City's Carson River Park is located on the west side of the river near the northern boundary of the ranch and is also a public facility which provides access to the river in this area. Public access to the riparian area on the west side of the river, south of the City park is restricted due to wildlife habitat concerns.

Issue #5. The Management Plan includes provisions to restrict public access to the west side of the river in an area that currently contains a mature cottonwood woodland. This restriction was included due to concerns about human impacts on vegetation and disturbance of wildlife in the cottonwood woodland. Additional actions are presented in the wildlife section of the Management Plan that are intended to protect and enhance this vegetation community.

Issue #6. Management actions included under Goal 6-1, Objective C in the wildlife section addresses your concern regarding allocation of water for wetland values.

Although the Management Plan does not include specific provisions for fishery habitat improvements such as boulders or other in channel structures, it does include provisions for acquiring in-stream flow water rights to improve the health of the aquatic ecosystem. In the future, we would be happy to assist the Nevada Division of Wildlife in planning and implementing fishery habitat improvements in the Carson River in the vicinity of the SSR .

Issue #8. ORV use on the SSR is limited to the development of a staging area in a canyon on the east side of the river to serve as an access point to the Pinyon Hills and Pine Nut Mountains. Signing and barriers will be used to close unauthorized ORV access trails. A decrease in the number of unauthorized trails leading from the east side of the ranch into the Pine Nut Mountains is expected to reduce soil erosion and sediment transport in these areas.

Issue #9. BLM will continue to involve both its partners and the public in management of the SSR. This certainly includes consultation with local landowners, including the State of Nevada, on actions taken for the purposes of riparian restoration.

The decision to implement a user fee for the SSR will be made by June 2001. If a memorandum of understanding with the state is required due to the state's ownership of the Carson River and all lands within the normal high water mark, BLM will work with the state to complete the necessary memorandum.

Provisions in the Management Plan specify parking areas will not be paved on the Ranch. Paved parking areas may be constructed in the future if needed and after the appropriate environmental analysis is completed.

9. Alice M. Baldrice, Deputy State Historic Preservation Officer, State historic Preservation Office, Carson City, Nevada.

Response: Thank you for your comments regarding cultural resource management on the SSR. The BLM will continue to consult with the State Historic Preservation Office in regards to management of the SSR.

VII. APPENDICES OR ATTACHMENTS

Comment Letters

1. Reta Hanks, Carson City Nevada..
2. Robert R. Kautz, Ph.D., Kautz Environmental Consultants, Inc., Reno Nevada.
3. Anonymous, Carson City, Nevada.
4. Becky Quigley, Virginia City, Nevada.
5. Walter Sullivan, Community Development Director, Carson City, Nevada.
6. Vern L. Krahn, Parks and Recreation Department, Carson City, Nevada.
7. Mark Kimbrough, Carson City, Nevada.
8. Richard T. Heap Jr., Regional Manager Western Region, Nevada Division of Wildlife.
9. Alice M. Baldrice, Deputy State Historic Preservation Officer, State historic Preservation Office, Carson City, Nevada.

This environmental assessment has been reviewed and complies with all provisions of the National Environmental Policy Act.

Environmental Coordinator

Date

FINDING OF NO SIGNIFICANT IMPACT / DECISION RECORD

Environmental Assessment NV-030-2000-014

Decision: It is my decision to implement the proposed action as described on pages 8-38 of the attached Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area. The proposed action is in conformance with recreation decisions in the Walker Resource Management Plan and is clearly consistent with the objectives for wildlife, riparian, soils, water quality and visual resource management. Implementation of management actions found in the plan will provide a wide range of recreation opportunities and activities for the public at the SSR while protecting the natural and cultural resources also found there. In addition, implementation of the proposed action will complement Carson City's Carson River Master Plan and Eagle Valley Trails Plan.

Finding of No Significant Impact: Based on the information and analysis presented in the Environmental Assessment for the Interdisciplinary Management Plan for the Silver Saddle Ranch and Ambrose Carson River Natural Area NV-030-2000-014, I have determined **no significant impacts** to the human environment are expected to result from implementation of the proposed action and preparation of an Environmental Impact Statement is not required.

Rationale:

Interdisciplinary planning for management of the Silver Saddle Ranch (SSR) and Ambrose Carson River Natural Area addressed ten issues identified during the scoping process. The issues of Recreational Opportunities and Management, Public Health and Safety, Fire Management, Preservation and Protection of Cultural Resources, Vegetation Management, Wildlife Habitat Management, Water Management, Non-Point Source Pollution Management, Relationships to Adjacent External Areas and Management of the Ambrose Carson River Natural Area were addressed through development of goals, objectives and management actions. The planning process included significant contributions of time and effort by the Carson River Task Force, members of the Carson River Advisory Committee, and Carson City Parks and Recreation personnel. The results of this planning effort would guide management of the area for the next ten to fifteen years.

Two alternative management strategies for the Silver Saddle Ranch and Ambrose Carson River Natural Area, in addition to the proposed action, were considered in the attached environmental assessment. These alternatives included the Low Impact/Minimum Development Alternative A and the Working Ranch/Environmental Education Alternative B.

The proposed action is in conformance with applicable recreation and open space decisions found in the Walker Resource Management Plan (1986) (RMP) as amended by the Carson City Urban Interface Plan (1996). It is also clearly consistent with objectives for wildlife, riparian, soils, water quality and visual resource management in the RMP. In addition, the proposed action is clearly consistent with management provisions found in the Carson River Master Plan (1996) and the Eagle Valley Trails Plan.

Impacts resulting from implementation of the proposed action were examined for their site specific intensity and considered in the context of the greater Carson City area. The environmental assessment did not identify any unmitigated adverse impacts resulting from implementation of the proposed action on the issues of Recreation Opportunities and Management, Public Health and Safety, Preservation and Protection of Cultural Resources, Water Management and Management of the Ambrose Carson River Natural Area. Thus no significant adverse impacts to these resource issues would occur if the proposed action were to be implemented.

Increased use of the SSR would increase the risk of human caused wildfires in the area. Management actions contained in the proposed action such as improved access for fire fighting equipment, reductions in fuel loading, clearing a defensible space around historic structures and public education in regards to fire management is expected to reduce this risk. Impacts to the issue of fire management resulting from implementation of the proposed action are not expected to be significant.

Implementation of the proposed action is expected to have generally beneficial effects on riparian, upland and cultivated vegetation. Actions devised to protect the riparian area, rehabilitate existing disturbed areas, and maintain the cultivated fields in a productive state are expected to provide these benefits. The risk of introducing non-native or noxious weeds into the area through increased visitation at the ranch and providing sites for establishment through new surface disturbance has been identified. This risk is considered slight and would be controlled through the BLM's annual noxious weed treatment program. No significant adverse impacts to vegetation are expected.

The proposed action is expected to benefit wildlife through maintenance and qualitative improvement of the habitat on the ranch. As other areas in the valley are developed, the habitat in protected areas such as the SSR become essential to many wildlife species. The only adverse impact to wildlife identified in the EA is the potential effect of trail construction and increased use of the Prison Hill area on mule deer populations. The effects on the mule deer population are uncertain since it is not possible to predict an accurate habitat quality change associated with the expected level of use. Monitoring the use of this area and the deer population is expected to provide information on which future mitigation measures may be based. If substantial impacts on the deer population are detected in the future the opportunity to mitigate the impact through limitations on trail use exist. No irreversible significant impacts on wildlife are expected.

The proposed action is expected to reduce non-point source pollution by maintaining healthy riparian vegetation communities, stable upland plant communities and well managed irrigated pastures. These communities are expected to prevent accelerated erosion and reduce the amount of sediment introduced into the river. Some risks for increasing non-point source pollution exist if trails are improperly placed, trailhead staging areas are improperly designed, unsuccessful seeding of burned areas occurs or noxious weeds become established. Non-point source pollution will be considered in the design and construction of trails and staging areas and during implementation of prescribed fire and other surface disturbing activities. Risks for increasing non-point source pollution during implementation

of the proposed action are considered to be low. No significant increase in non-point source pollution is expected.

Increased use of the SSR could lead to increased trespass problems on neighboring private land. Mitigation through signing of common boundaries and public education is expected to mitigate this impact. No significant impacts to adjacent private lands are expected.

Mitigation:

1. Monitor use of the Prison Hill Trail and mule deer populations to determine if increased use of this area is having an impact on resident deer populations.
2. Sign the boundaries between the ranch and private property. Educate the public on the need to respect private property.
3. The trail in the flood plain should be signed emphasizing respect for the woodland and riparian values and to be cognizant of flash flooding.
4. For the long range management the trail(s) should be designed and placed well above the flood plain.
5. Initiate fuels reduction projects to create natural fuel breaks. While this may reduce habitat for various wildlife species that provide food for nesting raptors, it may also increase habitat for raptors while hunting. In either case, no smoking or open fires signs will be posted and adherence enforced in areas visited by the public.

Assistant Manager, Non-renewable Resources

Date